



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 10

1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

MAR 9 2016

OFFICE OF
COMPLIANCE AND ENFORCEMENT

Reply to: OCE-101

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

NOTICE OF VIOLATION

The Honorable Joe Stear
Mayor of Kuna
763 West Avalon
Kuna, Idaho 83634

Re: City of Kuna WWTP
NPDES Permit Number ID-002835-5

Dear Mayor Stear:

On June 1, 2009, the U.S. Environmental Protection Agency (EPA) issued a National Pollutant Discharge Elimination System (NPDES) permit to the City of Kuna, Idaho wastewater treatment facility ("Facility"), NPDES Permit Number ID-002835-5 ("Permit"). The Permit was administratively extended on January 14, 2014. The purpose of this letter is to notify you of violations EPA discovered after reviewing our administrative files including the Discharge Monitoring Reports (DMRs) submitted by the Facility, and in response to the October 13, 2015 inspection of the Facility conducted by the Idaho Department of Environmental Quality (IDEQ) on behalf of the EPA. The purpose of the inspection was to determine the Facility's compliance with the requirements of the Clean Water Act (CWA) and the NPDES permit. I would like to express my appreciation for your staff's time and cooperation during the inspection.

REVIEW OF ADMINISTRATIVE FILES

1. EPA reviewed the DMRs from February 2011 to February 2016 and identified effluent limitation exceedances that constitute 208 violations of the CWA, 33 U.S.C. § 1251 *et seq.* A list of these violations is enclosed (Enclosure A).
2. Part I.C of the Permit states that the permittee must conduct surface water monitoring. Surface water monitoring must begin in the first calendar month in which the permittee discharges pollutants to the receiving water and must continue as long as the permit remains in force.

Part I.C.7 of the Permit specifies that annual written certification specifying that the Permittee has collected and analyzed surface water samples in accordance with all applicable conditions in this permit must be submitted to EPA and IDEQ with the December DMR.

The 2013 Surface Water Monitoring Annual Certification report was due on January 20, 2014 but was not received until October 27, 2014. This is a violation of Part I.C.7 of the Permit.

3. Part I.D.4.a of the Permit specifies that the permittee must submit the results of the toxicity tests with the discharge monitoring reports (DMR). Toxicity tests taken from May 1 through October 31 must be reported on the October DMR. Toxicity tests taken from November 1 through April 30 must be reported on the April DMR.

During EPA file review, it was identified that the Facility did not submit toxicity results with the November 20, 2013 or May 20, 2014 DMRs as required. These are violations of Part I.D.4.a of the Permit.

On December 21, 2015, the NPDES Electronic Reporting Rule became effective. Permittees with a DMR requirement will have one year from this date to submit DMRs through NetDMR. Additional information is enclosed (Enclosure B).

OCTOBER 2015 INSPECTION

1. Part II.B.3.b of the Permit specifies that the Quality Assurance Plan (QAP) must contain map(s) indicating the location of each sampling point.

At the time of the inspection, the inspector noted that the Facility's QAP did not include a map showing sampling locations. This is a violation of Part II.B.3.b of the Permit.

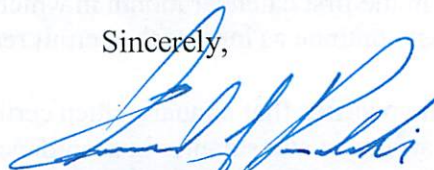
2. Part IV.E of the Permit states that the permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

At the time of the inspection, the plant foreman, Mr. Shaffer, told the inspector that the aluminum sulfate dosing pump diaphragm had ruptured resulting in inadequate chemical dosing thereby causing the exceedances of the phosphorous limits. The Facility had recently changed suppliers of the aluminum sulfate and the new product crystalized in the feed lines causing the diaphragm rupture. Failure to adequately operate and maintain the facility is a violation of Part IV.E of the Permit.

Although our goal is to ensure NPDES facilities comply fully with their permits, the ultimate responsibility rests with the permittee. As such, I want to strongly encourage you to continue your efforts to maintain full knowledge of the Permit requirements, and other appropriate statutes, and to take appropriate measures to ensure compliance. Notwithstanding your response to this letter, EPA retains all rights to pursue enforcement actions to address these and any other violations.

I have enclosed a copy of the inspection report (Enclosure C). If you have any questions concerning this matter, please do not hesitate to contact Raymond Andrews of my staff at (206) 553-4252.

Sincerely,



Edward J. Kowalski
Director

Enclosures

cc: Mr. Stephen Berry
Idaho Department of Environmental Quality
stephen.berry@deq.idaho.gov

Mr. Aaron Scheff
Boise Regional Administrator
Idaho Department of Environmental Quality
aaron.scheff@deq.idaho.gov

Mr. Tom Shaffer
Plant Foreman
City of Kuna

Enclosure A
DMR Effluent Exceedances

Date	Parameter	DMR Reported Value	Effluent Limit	Limit Type	# Violations
May 2011	Phosphorous, total [as P]	79 ug/L	70 ug/L	Mo Avg	31
May 2011	Phosphorous, total [as P]	108 ug/L	105 ug/L	Wkly Avg	7
May 2012	Phosphorous, total [as P]	131.5 ug/L	105 ug/L	Wkly Avg	7
April 2014	pH	6.24 SU	6.3 SU	Instant Max	1
July 2014	Phosphorous, total [as P]	75 ug/L	70 ug/L	Mo Avg	31
September 2014	Phosphorous, total [as P]	73 ug/L	71 ug/L	Mo Avg	30
March 2015	Nitrogen, ammonia total [as N]	5.57 mg/L	1.7 mg/L	Mo Avg	31
March 2015	Nitrogen, ammonia total [as N]	20.1 mg/L	3.9 mg/L	Daily Max	1
July 2015	Phosphorous, total [as P]	72 ug/L	70 ug/L	Mo Avg	31
August 2015	Phosphorous, total [as P]	134 ug/L	105 ug/L	Wkly Avg	7
August 2015	Phosphorous, total [as P]	139 ug/L	70 ug/L	Mo Avg	31

NetDMR: Electronic NPDES Reporting

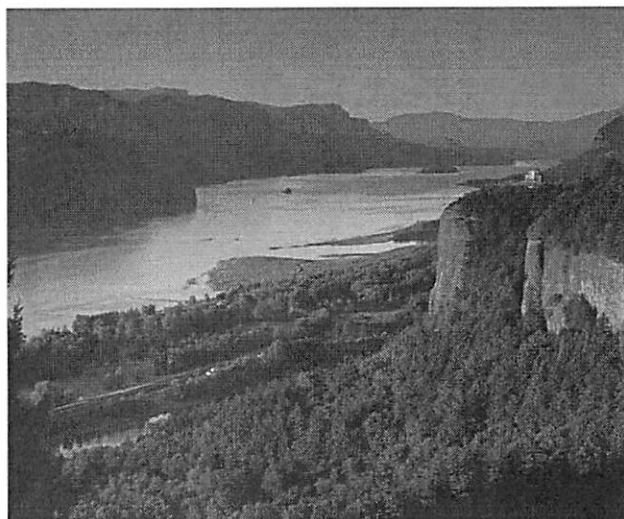


Region 10, Seattle WA

On October 22, 2015, EPA published the Clean Water Act National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, which requires electronic reporting of NPDES information from permitted facilities. **As of December 21, 2015 this rule becomes effective. Permittees with a DMR requirement will have one year from this date to submit DMRs through NetDMR.** The final NPDES eRule will save time and resources for permittees, states, tribes, territories, and the U.S. Government while increasing data accuracy, improving compliance, and supporting EPA's goal of providing better protection of the nation's waters.

Compliance is Required

November 2015



Columbia River

What is NetDMR?

NetDMR is a web application that can be used to enter and submit data required to meet NPDES permit reporting requirements. The Agency (State, Region, Tribal Nation, or EPA headquarters) that issued and manages your permit can tell you how you can report using NetDMR.

- It creates a signed digital document and eliminates paper data entry. The result is improved data quality and availability, increased consistency of data, and speeds up the DMR process.
- NetDMR was made available to the states on June 22nd, 2009; Region 10 (WA, OR, AK, ID) implementation began on July of 2009. Since that time approximately 100 permittees have enrolled in NetDMR or about 25% of the 400 permittees overseen by the EPA in Region 10 with a DMR requirement.

How Do I Learn More?

To learn more please visit the NetDMR support site <https://netdmr.zendesk.com/home>. Under the Knowledge Base tab at the top of the screen there are user guides and documents to help get you started.

Or contact the Region 10 NetDMR team:

- Region 10 NetDMR Email Address:
- Jason Rodriguez:
- Sharon Eng:

R10NetDMR@epa.gov

206-553-8508 rodriguez.jason@epa.gov

206-553-0705 eng.sharon@epa.gov

Enclosure C
October 13, 2015 IDEQ Inspection Report

NPDES
INSPECTION REPORT

WASTEWATER TREATMENT FACILITY

City of Kuna

Permit Number: ID-002835-5

INSPECTION DATE: October 13, 2015

REPORT DATE: November 6, 2015

Prepared by
Mike Piechowski, P.E.
Technical Services
Idaho Department of Environmental Quality



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(Unless otherwise noted, all details in this inspection report were obtained from conversations with Tom Shaffer, Plant Foreman, and Mike Nadeau, Lead Operator)

1 Facility Information

Facility Name:	Kuna, ID Wastewater Treatment Plant (facility)
Facility Type:	Municipal Wastewater Treatment Plant
Facility Location:	6950 S Ten Mile Road Meridian, ID 83642 Latitude: +43.5423 Longitude: -116.43122
Mailing Address:	3401 N Ten Mile Road Meridian, ID 83646
Facility Contacts:	Tom Shaffer, Plant Foreman Mike Nadeau, Lead Operator
Facility Numbers:	Ph: (208) 287-1729 Fax: (208) 287-1731
Permit Number:	ID-002835-5
Permit Status:	The current permit became effective June 1, 2009 and expired on May 31, 2014. Permit has been administratively continued.
SIC Code:	4952
NAICS:	221320

2 Inspection Information

Inspection Date/Time:	October 13, 2015	9:00am to 12:30pm
Inspector:	Mike Piechowski (IDEQ, Boise)	
Weather:	Cool, Sunny	
Purpose:	Determine compliance with the NPDES Permit and the Clean Water Act	

3 Inspection Entry

This was an announced inspection. Mr. Shaffer was contacted two weeks prior to the October 13th inspection date. I was accompanied on the inspection by Mr. Andrew John, also with Idaho Department of Environmental Quality (DEQ).

We met Mr. Shaffer and Mr. Nadeau at the facility at approximately 9:00am. I presented my credentials and discussed the purpose of the visit, and was not denied access to the facility.

We were accompanied throughout the inspection by Mr. Shaffer and Mr. Nadeau.

4 Inspection Chronology

On October 13, 2015, the inspection began with an entry interview, followed by a file review and tour of the on-site laboratory and treatment processes. The facility is located at 6950 S Ten Mile Road in Kuna. See Attachment A for facility location.

As part of the file review, the facility's quality assurance plan (QAP), the operation and maintenance (O&M) manual, the Emergency Response Plan, and discharge monitoring reports (DMRs) were reviewed.

The facility tour included a review of the sample collection and analytical procedures at the onsite laboratory, and an inspection of all treatment units.

The inspection then concluded with an exit interview where I stated the areas of concerns and other observations identified during the inspection.

We left the facility at approximately 12:30pm.

5 Owner and Operator Information

The facility is owned by the City of Kuna, Idaho.

Mr. Shaffer supervises the facility, and Mr. Nadeau is responsible for normal plant operations. Mr. Shaffer and Mr. Nadeau both perform sample collection and onsite analysis.

DMRs are completed by both Mr. Shaffer and Mr. Nadeau and completed DMRs are signed by Public Works Director Gordon Law.

6 Background

The permit authorizes the facility to discharge through outfall 001 to Indian Creek. The facility effluent is piped via gravity flow approximately 4 miles northwest to the discharge location.

The facility receives wastewater from approximately 3,500 residential connections and several commercial/restaurant connections. The facility has a design flow of 3.2 million gallons per day (MGD) and an actual annual average daily flow of 0.6 MGD.

The collection system is constructed primarily of PVC and does not experience any notable problems with blockages, overflows, or infiltration and inflow (I&I). The facility operates 10 lift stations.

7 Waste Management Process

The facility headworks consist of an influent sampling station, flow measurement, screening, cyclone grit removal, and a grit classifier. After dewatering with a belt press and compaction, grit and screenings are deposited into dumpsters and disposed of via landfill. Due to problems with fine fibers clogging the membranes, the facility recently added an additional fine screen prior to the biological treatment basins.

Biological treatment consists of anaerobic and anoxic basins, two aerobic basins, and a post anoxic basin. Estimated detention time is approximately 50 days, according to Mr. Shaffer.

Flows then receive membrane filtration and UV disinfection prior to discharge. The facility chemical room includes tanks for aluminum sulfate used for phosphorus removal, citric acid and sodium hypochlorite used for membrane cleaning, and caustic soda for pH adjustment.

8 Scope of Inspection

The scope of the inspection was to review monitoring activities, records, and reports pertaining to the NPDES Permit, and to visually inspect the wastewater treatment processes, general operation and maintenance, and self-monitoring of the system.

9 Records Review

The O&M Manual was complete and well maintained. The QAP was partially complete but lacked a map showing sampling locations.

Mr. Shaffer maintains DMRs and other facility records in his office. DMRs for the previous year were reviewed and appeared to be accurate and complete. In March 2015, the facility experienced several daily limit exceedances for total ammonia as N, the largest being 20.1 mg/L (Permit limit 3.9 mg/L), and the March 2015 average monthly limit for total ammonia as N was also exceeded with a result of 5.57 mg/L (Permit limit 1.7 mg/L). Mr. Shaffer suspected that low influent water temperatures and over-wasting of solids contributed to the ammonia exceedances. In response, the facility ceased solids wasting and added approximately 4,000 gallons of seed sludge from the Boise City Lander Street Wastewater Treatment Plant. Subsequent monitoring indicated that ammonia levels had returned to normal levels after plant stabilization.

Total phosphorus limits were exceeded in August 2015 with a weekly average of 134 µg/L (Permit limit 105 µg/L). A monthly average was also exceeded with a calculated result of 139 µg/L (Permit limit 70 µg/L). According to Mr. Shaffer, it was discovered that the aluminum sulfate dosing pump diaphragm had ruptured resulting in inadequate chemical dosing. Further investigation revealed that a switch to a different manufacturer for the aluminum sulfate had resulted in a product that tended to crystalize in feed lines causing diaphragm problems. After repairing the equipment and cleaning out crystalized residue, the facility resorted to previously used product and phosphorus discharge results quickly returned below permit limits.

Chain of Custody forms were reviewed and appeared to be accurate and complete. All required permit records were well organized and maintained.

10 Wastewater Treatment Facility Inspection

We started the facility inspection at the on-site laboratory. The laboratory appeared to be well maintained and efficiently operated. Buffers for pH calibration were checked for expiration and all buffers were in good condition.

The headworks area includes the flow measurement, a sampling station, screening equipment, grit classifier, compaction, and dumpsters for screening/grit removal. All headworks facilities appeared to be well maintained and operated.

The newly installed fine screen removes fine fibers that were causing problems with the membranes. According to Mr. Shaffer, he suspects that numerous cottonwood trees in the area contributed to the fiber problem. The adjacent biological treatment basin with pre-anoxic, anaerobic, aerobic, and post-anoxic cells appeared to be operated efficiently as were the following membrane filtration bays. The treated wastewater is then disinfected via UV disinfection, and discharged by gravity conveyance to Indian Creek at Robinson Road.

The chemical storage area was clean and well laid out, as was the blower room. Blowers are used for the aeration basin and for membrane scouring.

At the time of inspection, all treatment units were operational. The facility appeared to be well maintained and operated. See Attachment B for photo documentation of the units.

11 Facility Sample Collection and Analyses

The facility sample collection and onsite analyses are conducted jointly by Mr. Shaffer and Mr. Nadeau. On-site analysis includes E. coli, pH, temperature, DO, and chlorine. The facility utilizes Analytical Laboratories, (Boise, ID) for other analyses, including Whole Effluent Toxicity (WET) testing.

12 Areas of Concern

1. Proper Operation and Maintenance—Part IV.E of the Permit requires that the permittee must at all times operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of the permit. The facility exceeded ammonia limits in March, 2015 due to low temperatures and suspected improper solids wasting. The facility also exceeded phosphorus limits in August 2015 due to mechanical failure caused by improper monitoring of a change in a chemical product. My concern is that the facility did not properly operate and maintain all systems of treatment as required by the permit.

13 Additional Observations

1. Operation and Maintenance — Notwithstanding the areas of concern noted above, the facility appeared to be clean, with very good overall operation and maintenance. The staff responded to the two permit exceedances rapidly and correctly. This indicated to me a good understanding of facility problem investigation and correction. I conveyed this to Mr. Shaffer and Mr. Nadeau during the exit interview.

14 Inspection Sampling

Samples were not collected at the time of this inspection.

Report Completion Date: November 6, 2015

Lead Inspector Signature: 

Mike Piechowski, P.E.

State Office of Technical Services

Idaho Department of Environmental Quality

Attachment A—Aerial Photograph and Process Flow Diagram

**City of Kuna, Idaho
Wastewater Treatment Facility
(October 13, 2015 Inspection)**



Aerial photograph of the City of Kuna, ID wastewater treatment plant. Facility is located on the north side of the City at 6950 S Ten Mile road and discharges effluent to Indian Creek (Northwest of facility).



City of Kuna, ID Wastewater Treatment Plant.

Attachment B—Photograph Documentation

**City of Kuna, Idaho
Wastewater Treatment Facility**

(October 13, 2015 Inspection)

Name of Facility: City of Kuna

Inspector(s): Mike Piechowski

Inspection Date: Tuesday, October 13, 2015

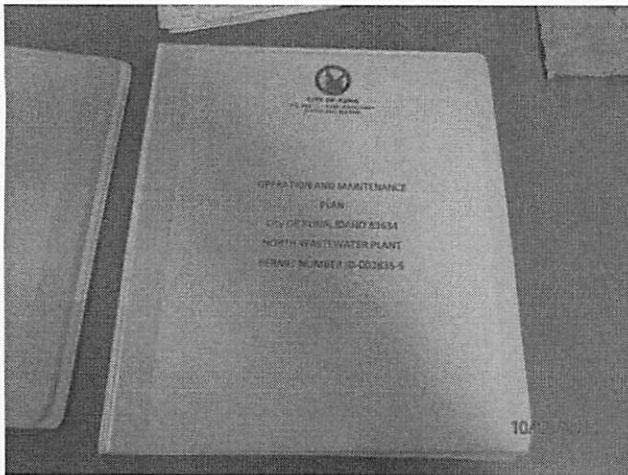
Purpose of Inspection: NPDES Compliance



Publish Date: Thursday 5 November 2015

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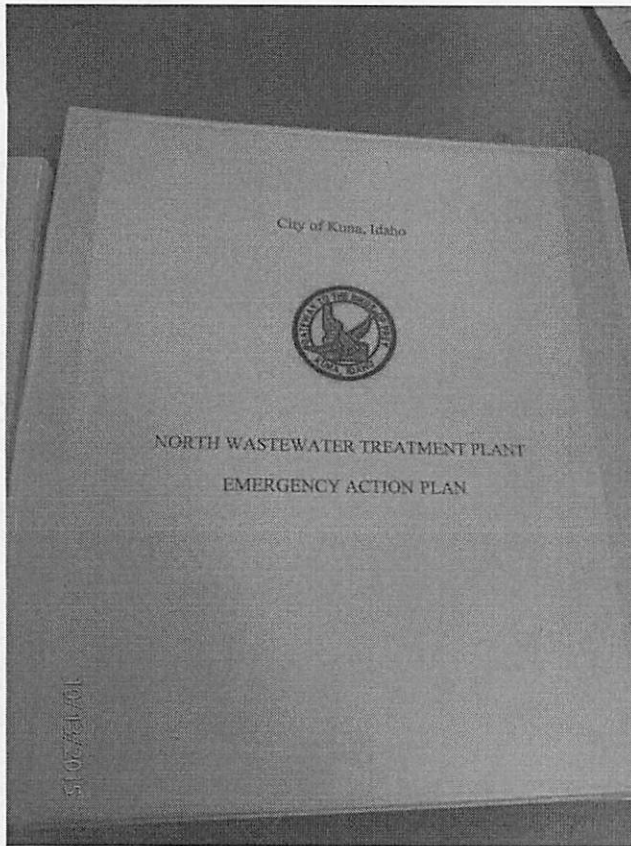
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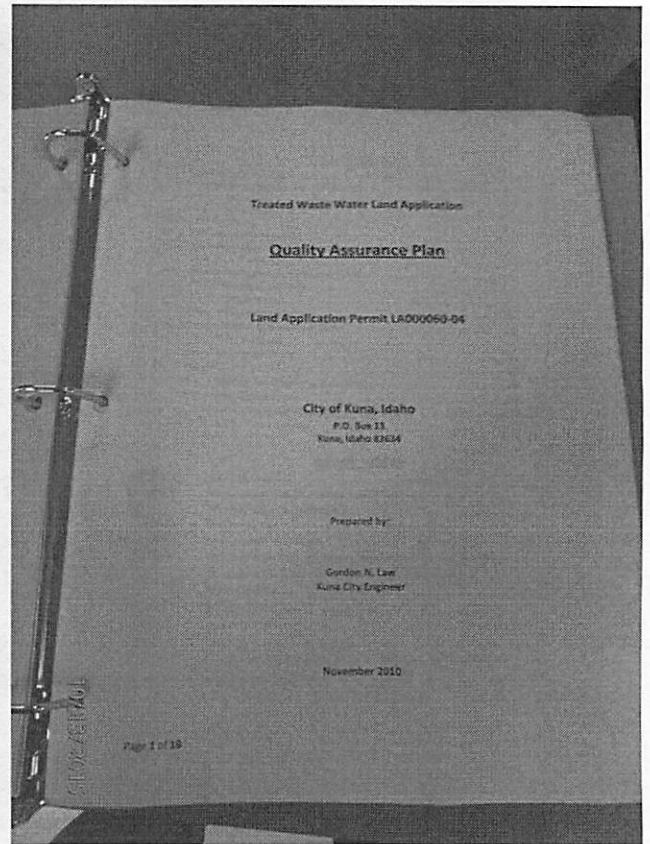
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Analytical Laboratories, Inc.

Quality Manual



Director: Michael Moore
 Quality Manager: Brian McGovern
 Deputy Quality Manager: James Hibbs
 Date of Issue: June 20, 2014
 Uncontrolled Copy

1014 E. 1st St. • Suite 10 • Orem, UT 84057 • Ph: (801) 241-5515 • Fax: (801) 241-5511
 Email: info@analytical-labs.com • Website: www.analytical-labs.com

Photograph 8: Contract Lab QAP



Photograph 9: On-site Lab storage area

CLIENT CODE: KONE W/

CHAIN OF CUSTODY R

CLIENT INFORMATION		PROJECT INFORMATION	
Project Manager:	<u>Thomas Shaffer</u>	Project Name:	
Company:	<u>City of Kona Community</u>	PWS Number:	
Address:	<u>6950 N. Teah Mole Rd</u>	Purchase Order Number:	
	<u>Kona ID 83634</u>	Required Due Date:	
Phone:	<u>350-1098</u>	Fax:	
E-mail Address:			
Sampled by: (Name print) <u>Andrew Cook</u>		Transported by: (Name print) <u>Andrew Cook</u>	
Lab ID	Date Sampled	Time Sampled	Sample Description (Source)
26784	7/1/15	0915	Effluent 24hr Comp
26785	7/1/15	0920	Inflow 24hr Comp

10/13/2015

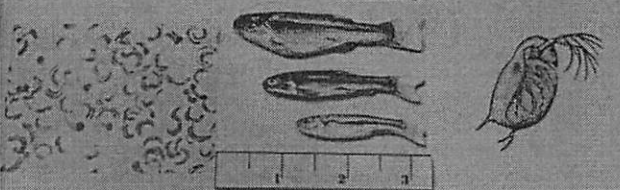
Photograph 10: Example of a Chain-of-Custody form

prepare reports in accordance with Good Laboratory Practices (GLP). If, for any reason, the report or procedure completed in error. Under no circumstances will Analytical Laboratories, Inc. be responsible for or disposed of at client expense.

of Kuna WWTP	Date: 7-6-15	Time: 10:46
	Date:	Time:
	Date:	Time:
A-1	Date: 7/6/15	Time: 10:46
DNA Temperature Received:	Condition: 6.2	
K SAMPLER	3.1°C	

Photograph 11: Temperature recorded on Chain-of-Custody forms

Biomonitoring Report
For
City of Kuna WWTP
Lab #1512525
Permit # ID-002835-5

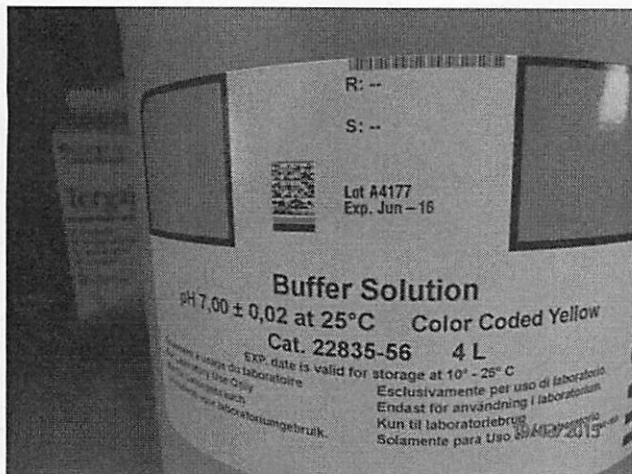


April 2015

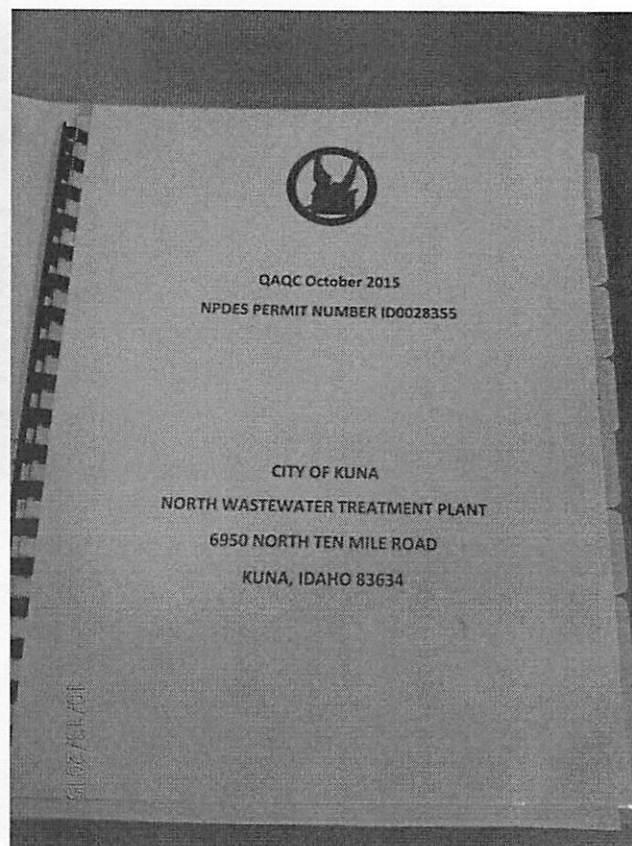
Prepared By:

Analytical Laboratories, Inc.

Photograph 12: Biomonitoring Report



Photograph 13: Buffer solution label



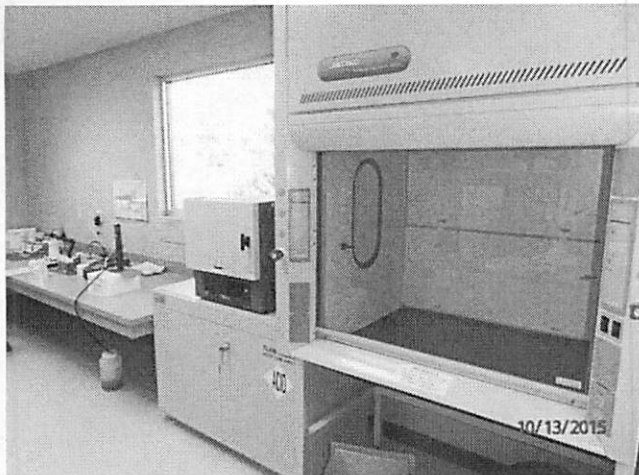
Photograph 14: Lab QA/QC

Sampling Interval --		5/week		
October 2015				
Date-Initials-Time	Sampled	pH/Temp C	COD mg/L	TSS
1 10/11/15	08:15	7.69 23.7	0.34	
2 10/11/15	08:41	7.70 23.8	0.35	
3				
4				
5 10/15	08:49	7.77 22.1	0.94	11.1
6 10/15	08:54	7.80 21.4	0.94	
7 10/15	08:21	7.69 22.5	0.80	
8 10/15	08:44	7.75 22.7	0.81	
9 10/15	08:54	7.70 22.8	0.92	
10				
11				
12 10/20	08:26	7.71 22.8	0.92	10.8
13 Tue	07:41	7.69 21.9	0.74	14.0
14				10/13/2015
15				

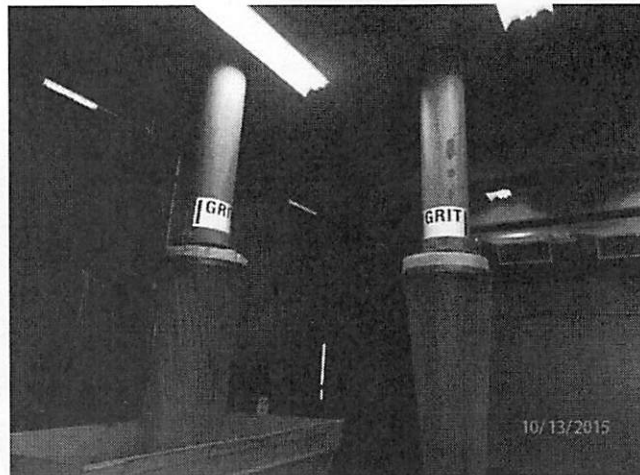
Photograph 15: Daily sample log



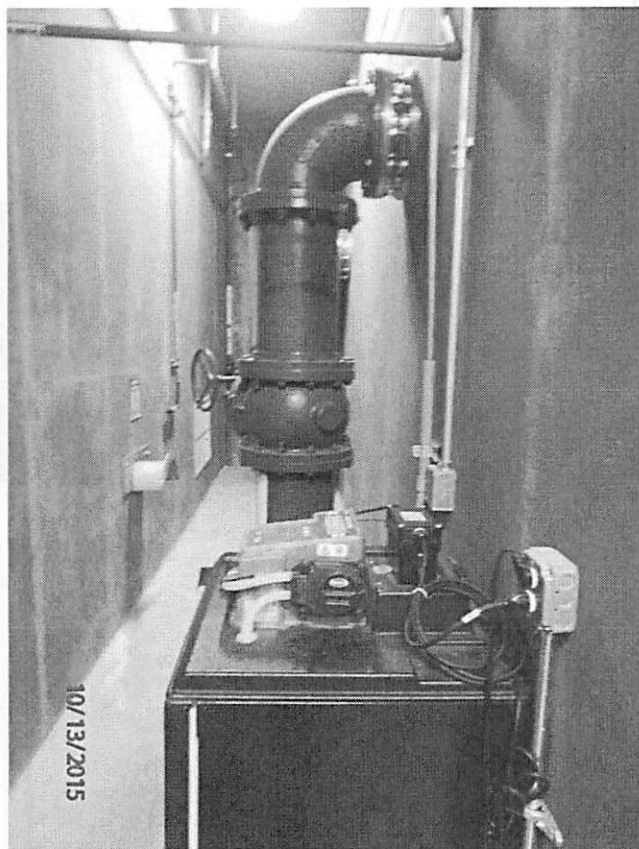
Photograph 16: Lab autoclave



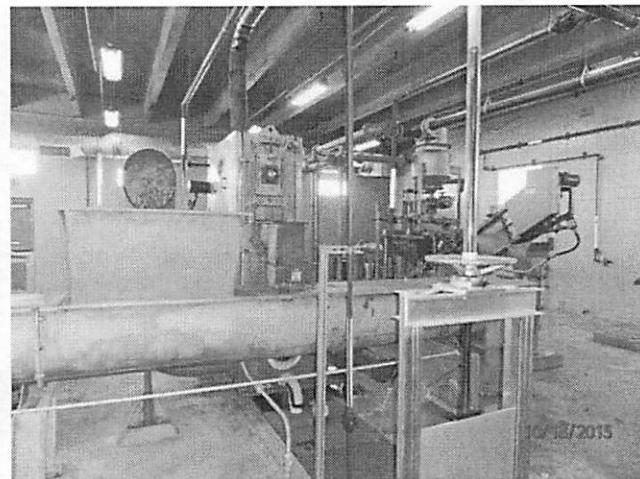
Photograph 17: Lab process area



Photograph 18: Grit dumpsters



Photograph 19: Influent sample station



Photograph 20: Headworks screens and grit classifier room



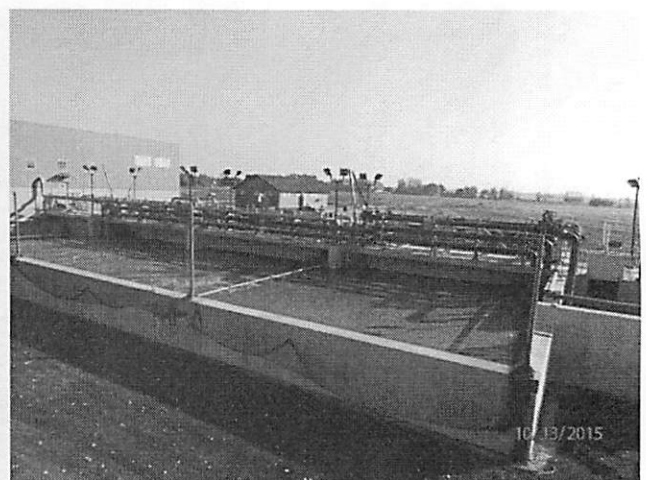
Photograph 21: Fine screen station



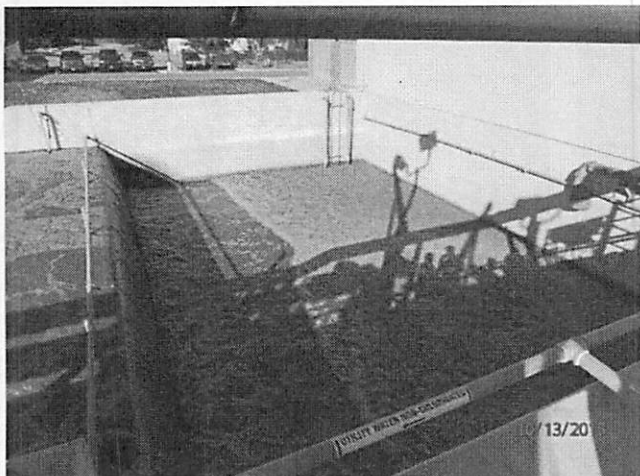
Photograph 22: Fine screen



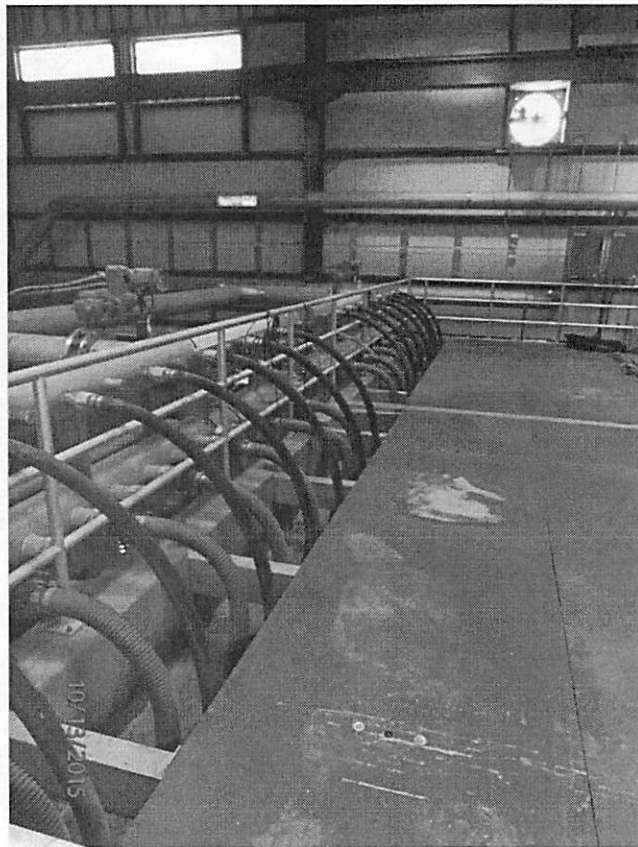
Photograph 23: Sludge piping



Photograph 24: Anaerobic and pre-anoxic basins



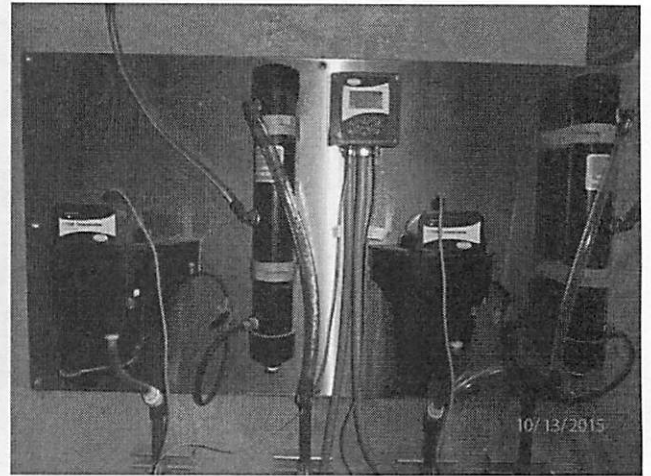
Photograph 25: Post-anoxic following aerobic basins



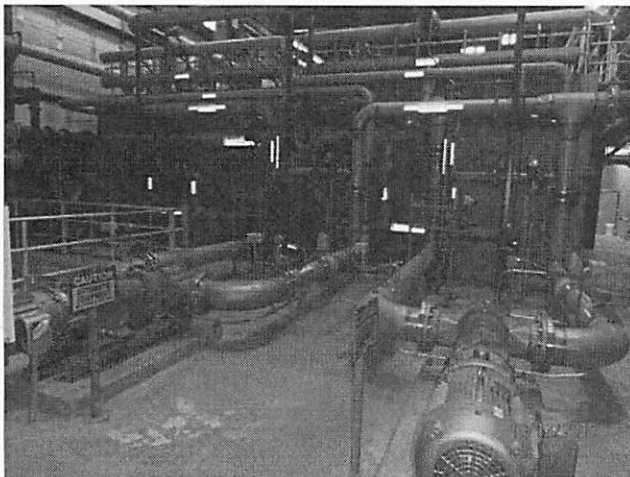
Photograph 26: Membrane piping gallery



Photograph 27: UV reactor



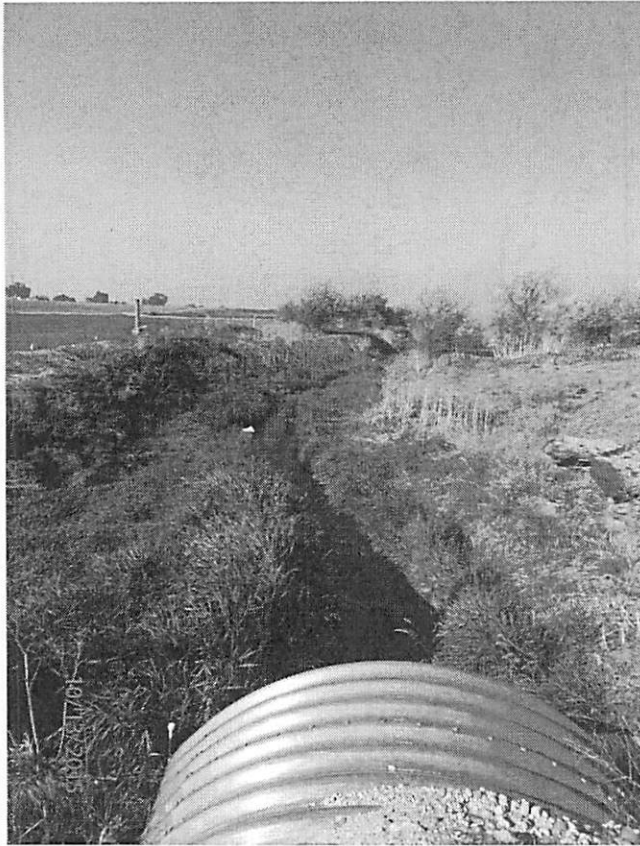
Photograph 28: Turbidimeters



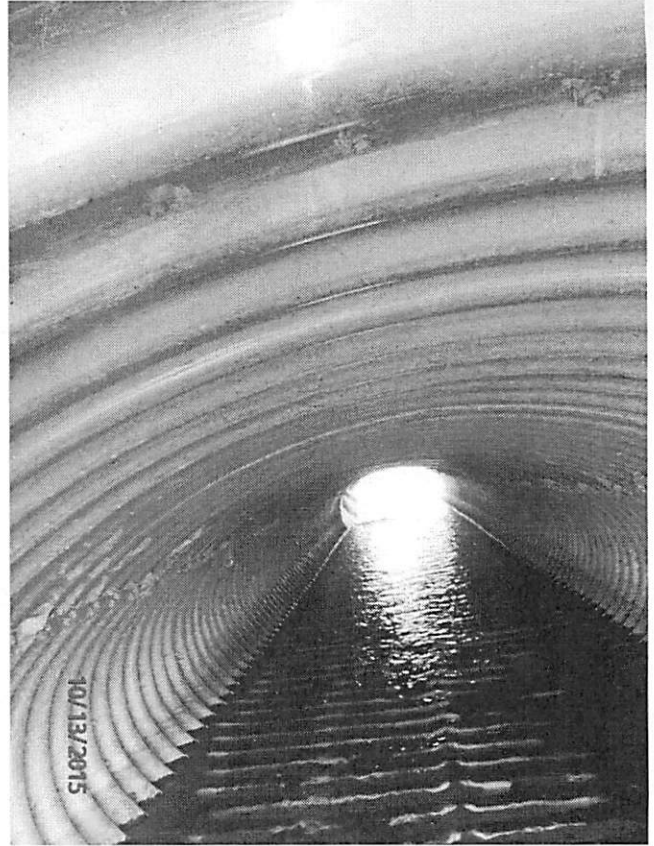
Photograph 29: Membrane pumps



Photograph 30: Blowers



Photograph 31: Outfall 001 culvert at Indian Creek



Photograph 32: Inside culvert from Outfall 001